ASUŁOŁÓX®

HERBICIDE

A post emergence translocated herbicide for the control of bracken under the conditions of the emergency authorisation issued by Chemicals Regulation Division of the Health and Safety Executive.

A soluble concentrate containing 400 g/L (33.6% w/w) of the sodium salt of asulam.

Warning

May cause an allergic skin reaction.
Very toxic to aquatic life with long lasting effects.
Wear protective gloves/protective clothing.
IF ON SKIN: Wash with plenty of water.
Avoid release into the environment.
Collect spillage.
Do not contaminate water with the product or its container (Do not clean application equipment near surface water/
Avoid contamination via drains from farmyards and roads).
To avoid risks to human health and the environment, comply with the instructions for use.
SAFETY PRECAUTIONS

OPERATOR PROTECTION
Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

DO NOT BREATHE SPRAY.
WASH HANDS AND EXPOSED SKIN before meals and after work.
WHEN USING do not eat drink or smoke.

ENIRONMENTAL PROTECTION
TO PROTECT AQUATIC ORGANISMS, respect an unsprayed horizontal buffer zone distance to surface water bodies of 90 m when spraying from helicopters using low drift nozzles such RD1000 Pencil Jets or Delavan RD ‘Raindrop’ type nozzles.

EXTREME CARE MUST BE TAKEN to avoid spray drift onto non-crop plants outside of the target area.

TO PROTECT GROUND NESTING BIRDS, use before 1 July in the season of use is not allowed.
There is a potentially significant risk to ground nesting birds towards the end of the breeding season.
WHERE THERE IS A RISK TO RARE OR SENSITIVE SPECIES, or where spraying is to take place near a Site of Specific Scientific Interest then advice must be sought from the appropriate conservation agency - Natural England, Scottish Natural Heritage, Natural Resources Wales or the Northern Ireland Environment Agency.

<table>
<thead>
<tr>
<th>Crops/Situations</th>
<th>Maximum individual dose (L product/ha)</th>
<th>Maximum number of treatments (per year)</th>
<th>Latest time of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rough Grazing, Moorland and Amenity Grassland</td>
<td>11.0</td>
<td>1</td>
<td>14 September</td>
</tr>
<tr>
<td>Forest</td>
<td>10.0</td>
<td>1</td>
<td>14 September</td>
</tr>
</tbody>
</table>

OTHER SPECIFIC RESTRICTIONS
1. This product must only be applied in accordance with the terms of the Emergency Authorisation and this product label.
2. This product must only be used for the control of bracken (Pteridium aquilinum).
3. This product must only be applied aerially by helicopter.
4. This product must only be applied using low drift nozzles.
5. No person may carry out aerial spraying or cause or permit another person to carry out aerial spraying unless such spraying is authorised by an aerial spraying permit issued by the Chemicals Regulation Division.
6. Livestock must be removed from areas to be treated and must not be allowed to return until at least 1 month after treatment.
7. Where ragwort is present users should consult the ‘Code of Practice on How to Prevent the Spread of Ragwort.’ Ragwort plants sprayed with this herbicide are more palatable and contain higher levels of toxins. Livestock must be excluded from treated areas until any ragwort has completely recovered or died and there is no visible sign of the dead weed. Do not include treated ragwort in hay or silage crops.
8. When this product is to be used with adjuvants, it must only be with adjuvants that have a List Entry that permits aerial application in mixture with asulam and all conditions of the List Entry must be followed.
9. This product must only be applied to dense bracken in continuous stands covering a minimum of 80%.

IMPORTANT INFORMATION
FOR PROFESSIONAL USE ONLY AS HERBICIDE VIA AERIAL APPLICATION
STORAGE AND DISPOSAL
KEEP AWAY from food drink and animal feedingstuffs.
KEEP OUT OF REACH of children.
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
WASH OUT CONTAINER THOROUGHLY and dispose of safely.
CONTAINERS MUST NOT be re-used.

DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

BRACKEN CONTROL

FRONDS MUST NOT be damaged by stock, frost (bronzed and stunted fronds) or by cutting before treatment.
DO NOT apply during or immediately after drought periods or in conditions of high temperature and low humidity.
DO NOT cut bracken for at least 4 weeks after spraying to permit movement of ASULOX to rhizome buds; preferably leave undisturbed until late autumn.
AT LEAST 6 WEEKS should elapse between applying ASULOX and sowing or planting any subsequent crop.
DO NOT admit livestock for at least 1 month after treatment to avoid trampling of treated fronds.
NOTE: No outward signs of the effects of ASULOX on bracken will be observed during the current season following application. The effects only become apparent the following spring when normal frond emergence in treated bracken fails to occur.
Apply ASULOX on a dry day. Ideally, there should be 24 hours without rain to allow for adequate uptake of ASULOX into the bracken plant. Light rain after 6 hours should not adversely affect activity.

Primary Clearance Treatments and Containment
Bracken should be treated in full frond (all fronds fully expanded) but before yellowing (start of senescence). Normally this will be within the period mid July to late August.

Follow Up Treatments for Bracken Clearance
Because of dormant buds on the rhizome system of bracken, complete control will not be achieved by a single application. Re-growth tends to be stunted but should be treated at the same timing as primary applications, irrespective of the state of frond development.
IF NO FOLLOW UP TREATMENT OR LAND IMPROVEMENT PROGRAMME IS CARRIED OUT, THE LAND IS LIKELY TO BE RE-INFESTED WITH BRACKEN WITHIN 5 YEARS OF A PRIMARY APPLICATION.

MIXING
For IBC containers use mechanical handling.

ASULOX can be applied in a water-based system.
If you wish to use it with an adjuvant, see the Chemicals Regulation Division Official List for details. Adjuvants must NOT be used in forestry situations when overspraying trees or other situations where selectivity of the applied spray may be critical.

Half fill the spray tank or container with water and then pour in the required amount of ASULOX and top up with water. An adjuvant may be added at 0.1%. Ensure thorough mixing before commencing spraying.

CROP SPECIFIC INFORMATION
Only one application should be made per year.

No bracken spraying should be attempted along stream banks, wet gulleys, screes and other locations where rare or unusual plants are often to be found.

Grassland species tolerance to ASULOX
Some grasses and herbs may be damaged by ASULOX. In practice, a dense bracken canopy protects the underlying vegetation and any check to these species is usually only temporary. The more sensitive species include Yorkshire fog, Timothy, Cock’s foot, bents, annual meadow grass, daisy, docks, plantains, saxifrage and all other ferns.

Tree species tolerance to ASULOX
Most species are unaffected. However, young specimens of the following may exhibit chlorosis and a slight check in growth if directly sprayed whilst actively growing:
Mature specimens of the above, as well as hawthorn, holly and rowan will be unharmed. Western hemlock and willows are more susceptible and spraying of these species should be avoided. Some forestry trees may be susceptible to damage at high rates of asulam. It is not possible to predict the tolerance of all forestry plants to asulam.

A. BRACKEN CONTROL IN ROUGH GRAZING, MOORLAND AND AMENITY GRASSLAND

BRACKEN CONTROL IN GRASSLAND AND AMENITY VEGETATION

AERIAL application by HELICOPTER only
Apply ASULOX at 11 L/ha in a total spray volume, including water, of 44 L/ha.

B. BRACKEN CONTROL IN FORESTRY AREAS

BRACKEN CONTROL IN FORESTRY AREAS

AERIAL application by HELICOPTER only
Apply ASULOX at 5-10 L/ha in a total spray volume, including water, of 55 L/ha.

Releasing Treatments in Forestry and Habitat Management
Apply ASULOX at 5-10 L/ha as an aerial overspray to saplings for the control of bracken as a releasing treatment. The higher rate (10 L/ha) will provide a longer period of bracken suppression and “release”. Do not use adjuvants with ASULOX in forestry situations when overspraying young trees.

Bracken Control for Tree Planting Programmes in Forestry

New Planting
Treat mature bracken by aerial application only after 1 July and before the end of August pre-planting. Leave bracken undisturbed until it dies back, then plant up in accordance with normal forestry practice. DO NOT re-plant for at least 4 weeks after spraying. Allow at least 4 weeks between application and cutting or clearing bracken from small trees to permit movement of ASULOX to the rhizome.

Re-Planting
After spring & early summer felling: treat mature bracken re-growth in late summer by aerial application only before the end of August and before re-planting.

Mid- to late summer and autumn felling: mid-summer felling conflicts with the timing of ASULOX applications as the bracken is immature before felling and bracken re-growth has no time to mature after felling. Only aerial application is permitted which conflicts with applications before felling in the late summer/autumn since ASULOX by aerial application will not penetrate the tree canopy.

RESISTANCE
Total reliance on one pesticide will hasten the development of resistance. Pesticides of different chemical types or alternative control measures should be included in the planned programme. Alternating with different modes of action is a recognised anti resistance strategy.
CONDITIONS OF SUPPLY
All goods supplied by the company are of good quality and we believe them to be fit for purpose. However, as we cannot exercise control over their storage, handling, mixing or use or the weather conditions before, during or after application, which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded, and no responsibility will be accepted by us or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods. Brand names used in this label may be registered trademarks of UPL Europe Ltd, or other manufacturers in which propriety rights may exist.

To access the Safety Data Sheet for ASULOX please use the link below or scan the code.

uk.uplonline.com/product-details/asulox

Alternatively, contact your local supplier.
ASULOX®
A post emergence translocated herbicide for the control of bracken under the conditions of the emergency authorisation issued by Chemicals Regulation Division of the Health and Safety Executive.
A soluble concentrate containing 400 g/L (33.6% w/w) of the sodium salt of asulam.

## IMPORTANT INFORMATION
FOR PROFESSIONAL USE ONLY AS HERBICIDE VIA AERIAL APPLICATION

<table>
<thead>
<tr>
<th>Crops/Situations</th>
<th>Maximum individual dose (L product/ha)</th>
<th>Maximum number of treatments (per year)</th>
<th>Latest time of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rough Grazing, Moorland and Amenity Grassland</td>
<td>11.0</td>
<td>1</td>
<td>14 September</td>
</tr>
<tr>
<td>Forest</td>
<td>10.0</td>
<td>1</td>
<td>14 September</td>
</tr>
</tbody>
</table>

## OTHER SPECIFIC RESTRICTIONS
1. This product must only be applied in accordance with the terms of the Emergency Authorisation and this product label.
2. This product must only be used for the control of bracken (*Pteridium aquilinum*).
3. This product must only be applied aerially by helicopter.
4. This product must only be applied using low drift nozzles.
5. No person may carry out aerial spraying or cause or permit another person to carry out aerial spraying unless such spraying is authorised by an aerial spraying permit issued by the Chemicals Regulation Division.
6. Livestock must be removed from areas to be treated and must not be allowed to return until at least 1 month after treatment.
7. Where ragwort is present users should consult the ‘Code of Practice on How to Prevent the Spread of Ragwort.’ Ragwort plants sprayed with this herbicide are more palatable and contain higher levels of toxins. Livestock must be excluded from treated areas until any ragwort has completely recovered or died and there is no visible sign of the dead weed. Do not include treated ragwort in hay or silage crops.
8. When this product is to be used with adjuvants, it must only be with adjuvants that have a List Entry that permits aerial application in mixture with asulam and all conditions of the List Entry must be followed.
9. This product must only be applied to dense bracken in continuous stands covering a minimum of 80%.

## SAFETY PRECAUTIONS

### OPERATOR PROTECTION
Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:
WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate.
However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.
DO NOT BREATHE SPRAY.
WASH HANDS AND EXPOSED SKIN before meals and after work.
WHEN USING do not eat drink or smoke.

### ENVIRONMENTAL PROTECTION
TO PROTECT AQUATIC ORGANISMS, respect an unsprayed horizontal buffer zone distance to surface water bodies of 90 m when spraying from helicopters using low drift nozzles such RD1000 Pencil Jets or Delavan RD ‘Raindrop’ type nozzles.
EXTREME CARE MUST BE TAKEN to avoid spray drift onto non-crop plants outside of the target area.
TO PROTECT GROUND NESTING BIRDS, use before 1 July in the season of use is not allowed.
There is a potentially significant risk to ground nesting birds towards the end of the breeding season.
WHERE THERE IS A RISK TO RARE OR SENSITIVE SPECIES, or where spraying is to take place near a Site of Specific Scientific Interest then advice must be sought from the appropriate conservation agency - Natural England, Scottish Natural Heritage, Natural Resources Wales or the Northern Ireland Environment Agency.

### STORAGE AND DISPOSAL
KEEP AWAY from food drink and animal feedingstuffs.
KEEP OUT OF REACH of children.
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
WASH OUT CONTAINER THOROUGHLY and dispose of safely.
CONTAINERS MUST NOT be re-used.

## Crops/Situations

<table>
<thead>
<tr>
<th>Crops/Situations</th>
<th>Maximum individual dose (L product/ha)</th>
<th>Maximum number of treatments (per year)</th>
<th>Latest time of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rough Grazing, Moorland and Amenity Grassland</td>
<td>11.0</td>
<td>1</td>
<td>14 September</td>
</tr>
<tr>
<td>Forest</td>
<td>10.0</td>
<td>1</td>
<td>14 September</td>
</tr>
</tbody>
</table>

## IMPORTANT INFORMATION
For Batch Number and Manufacturing Date see bottle.

UPL Europe Ltd
Engine Rooms (1st Floor), Birchwood Park, Warrington, WA3 6YN
Telephone: 01925 819999    Fax: 01925 817425

For 24 hour emergency information contact:
CARECHEM24 : +44 (0) 1235 239670

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.